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PROFILE OF UNIVERSITY TEACHERS IN THE MID-SEVENTIES  
(SELECTED CHARACTERISTICS)\*  
PART II

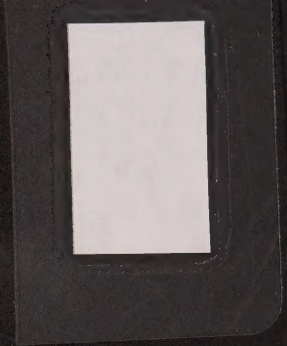


views expressed by the author  
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Prepared by:

Max von Zur-Muehlen, (Ph.D.)  
Institutional and Public Finance  
Statistics Branch,  
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## Introduction

After 20 years of unusual growth the university community finds itself in a period of readjustment. There is a growing concern about a number of critical issues and the socio-economic characteristics of university teachers such as age, qualifications, citizenship status and salary will become increasingly important variables for policy considerations, particular with regard to recent appointments. Statistics Canada has collected information on full-time university teachers from the over 100 university level institutions in Canada since 1956-57, first every second year, and since 1967-68 on an annual basis(1).

The data on university teachers contain a series of variables which have not been extensively analyzed to date. There are 26 variables for each of the over 30,000 full-time university teachers. (see appendix A)

This analysis focusses only on a selected list of variables, among them previous employment status before accepting university employment, grouped by qualification and geographic origin, citizenship status and rank distribution. Moreover, U.S. - Canadian comparisons have been provided for age, rank and qualification.

In the future, it will be particularly valuable to tabulate this type of information for 1975-76 and 1976-77 for comparison with previous years. It will be possible to relate the stock analysis data on the 30,000 to flow information on the additional appointments each year including those from

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(1) A separate report on the growth in numbers and characteristics of university teachers from 1956-57 to 1974-75, grouped into 47 disciplines, has been prepared. The focus of the study is directed to the growth pattern of university teachers. Their sex, age, rank distribution, doctoral qualification and salary structure, both at the national and regional level, is being examined, whereas this report concentrates on certain characteristics of new appointments.

1975-76, and 1976-77. There exists, of course, the possibility to create cross-tabulations by making use of the major variables such as teaching field or discipline, academic rank or legal residence status, and relate them to other variables such as qualifications, citizenship and previous employment status. It is frequently a matter of judgment what type of tabulations are produced. The present exercise is rather selective. The following tables show some of the possibilities and indicate the potential for this type of exercise.

One difficulty has been the fact that a number of institutions have not reported the required information regularly, and consequently the percentage distribution might not be representative for the total universe. However, an attempt has been made to identify these institutions and incorporate this information into the analysis. In most instances, the lacking data account for 5 to 15 per cent of the universe, depending on the year. As an additional qualification, it should be mentioned that the information is available for only full-time university teachers and not for the part-time faculty who generally teach one or two courses as sessional lecturers. The numbers involved as part-time university teachers are substantial and can be estimated as 20,000, many of them teaching in continuing education programs of the universities.

#### Previous Employment of New University Teachers

Canadian universities employed 27,538 full-time university teachers in 1972-73 and this number increased to 28,410 in 1973-74 and to 30,069 in the following year, which meant an annual net growth of 774, 672 and 1659 respectively. However, there was a total of 2,787 new appointments in 1972-73 2577 in 1973-74, 2,862 in 1974-75. These numbers encompass three categories: first the net new growth on account of the expansion of universities

previous Employment of New Appointments at Canadian Universities, 1972-73 to 1974-75

Employment Sector	Doctorate			Other Qualifications			Total		
	1972-73	1973-74	1974-75	1972-73	1973-74	1974-75	1972-73	1973-74	1974-75
University or College .....	527 (60.4)	575 (63.9)	675 (66.8)	474 (37.7)	516 (40.1)	592 (40.5)	1,001 (47.0)	1,091 (49.9)	1,267 (51.3)
Other educational institutions .....	32 (3.7)	30 (3.4)	46 (4.6)	90 (7.2)	89 (7.0)	139 (9.5)	122 (5.7)	119 (5.4)	185 (7.5)
Students (including post-doctorals) .....	199 (22.8)	185 (20.6)	177 (17.5)	423 (33.6)	350 (27.2)	345 (23.6)	622 (29.2)	535 (24.5)	522 (21.1)
Hospital or health care .....	28 (3.2)	27 (3.0)	19 (1.9)	79 (6.3)	131 (10.2)	108 (7.4)	107 (5.0)	158 (7.2)	127 (5.1)
Government (including military) .....	38 (4.3)	34 (3.8)	49 (4.8)	58 (4.6)	77 (6.0)	96 (6.6)	96 (4.5)	111 (5.1)	145 (5.9)
Industry and Trade .....	18 (2.1)	21 (2.3)	24 (2.4)	41 (3.3)	42 (3.3)	79 (5.4)	59 (2.8)	63 (2.9)	103 (4.2)
Self-Employed .....	8 (0.9)	4 (0.4)	4 (0.4)	41 (3.3)	45 (3.5)	61 (4.2)	49 (2.3)	49 (2.2)	65 (2.6)
Other .....	23 (2.6)	23 (2.6)	17 (1.7)	52 (4.1)	36 (2.8)	39 (2.7)	75 (3.5)	59 (2.7)	56 (2.3)
Sub-total .....	873 (100.0)	899 (100.0)	1,011 (100.0)	1,258 (100.0)	1,286 (100.0)	1,459 (100.0)	2,131 (100.0)	2,185 (100.0)	2,470 (100.0)
Unknown .....	240	80	106	416	195	319	656	275	425
Total .....	1,113	979	1,117	1,674	1,481	1,778	2,787	2,460	2,895

as indicated above. Secondly, the attrition rate due to retirement, death and poor health. The attrition rate has been estimated at 1.0 to 1.5 per cent of the total number of university teachers which meant that each year there would have been in the neighbourhood of 300 to 450 replacement positions available. The third category has been mobility of university teachers. Almost 60 per cent of the new appointments can be attributed to mobility. In many instances, two university teachers within Canada might have exchanged positions. This means, from a statistical point of view, there has been two new appointments, but no new position created. The critical question in this context is their geographic as well as occupational origin.

On the average, during the three-year period, about 50 percent of the new appointees indicated that their previous employment had been university teaching and another 6 per cent were employed in other educational institutions (Table 1). Only 29.2 per cent of the new appointments in 1972-73 had been graduate students or post-doctorals preceding their university appointment and this declined to 24.5 per cent in 1973-74 and to 21.1 per cent in 1974-75. This pattern reveals that a relatively small number of new appointments have been available for recent university graduates. About 5 per cent of the new appointments originated from the health sector and a similar percentage from the government. Industry accounted for about 3 per cent of the new appointees and an equal percentage consisted of self-employed as well as other unspecified employment sources(2).

The previous employment of new appointments according to qualification is

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(2) For these three years 657, 275 and 425 respectively were listed as unknown previous employment, but the large majority of them came from three large Canadian Universities, who had not responded to this data element and it is assumed that the unknown category corresponds closely to the general pattern.

Table 2

Country of Graduate Study of New Appointments  
at Canadian Universities 1972-73 to 1974-75\*

	1972-73		1973-74		1974-75	
Canada	354	( 56.9)	307	( 57.4)	315	( 59.2)
United States	168	( 27.0)	168	( 31.4)	159	( 29.9)
United Kingdom	49	( 7.9)	28	( 5.2)	29	( 5.4)
Other Commonwealth	3	( 0.5)	2	( 0.4)	4	( 0.8)
France & Belgium	27	( 4.3)	10	( 1.9)	13	( 2.4)
Other Europe	14	( 2.2)	7	( 1.3)	3	( 0.6)
Others	1	( 0.2)	3	( 0.6)	5	( 0.9)
Not reported	6	( 1.0)	10	( 1.9)	4	( 0.8)
Total	622	100.0	535	100.0	532	100.0

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\* Only those are included who had indicated that they were graduate students or post doctorals preceding their appointment.

interesting to examine. In 1972-73, 60.4 per cent of the new appointees with a Ph.D degree had been teaching at the university level compared with only 37.7 per cent without a Ph.D degree. This shows that it is much more likely for new appointments with a Ph.D degree to have been employed in the university sector.

Expressed in absolute numbers, 199 Ph.D's who were fresh from graduate school were hired in 1972-73 and this number declined to 177 in 1974-75.

This number encompasses Ph.D graduates and post-doctorals from Canadian universities (both Canadian citizens and landed immigrants), Canadians with a doctoral degree from abroad as well as landed immigrants with a foreign Ph.D, and finally foreign scholars with a work permit.

As for new appointments made to graduate students with or without a doctorate, for these three years, less than 60 per cent had been in Canada preceding their appointments. (Table 2). Close to 30 per cent had been in the United States and the balance came mostly from European countries. This group is made up of returning Canadians with training from abroad as well as foreign citizens admitted to Canada on account of their appointment to a Canadian university. Speculatively, during the last three years, only about 125 to 150 new appointments with a Ph.D degree have been given to Canadian citizens, annually, including immigrants who had come to Canada before obtaining their Ph.D degree.

This figure confirms the premise that a small number of recent Ph.D graduates, both from Canadian universities and Canadian Ph.D's from abroad, have been able to obtain a university position in Canada. During the last three years, on the average, Canadian universities have produced close to 2,000 Ph.D's annually, in addition to the 500 Canadians who obtained their Ph.D degree abroad, mostly in the United States, Great Britain and France. Consequently, on the supply side there have been somewhere between 2,000 and

Table 3

Previous University Employment of New Appointments  
by Country at Canadian Universities, 1972-73 to 1974-75

	1972-73		1973-74		1974-75	
Canada	529	( 54.0)	638	( 60.4)	691	( 57.4)
United States	323	( 33.0)	297	( 28.1)	369	( 30.6)
United Kingdom	46	( 4.7)	44	( 4.2)	76	( 6.3)
Other Commonwealth	23	( 2.3)	22	( 2.1)	22	( 1.8)
France & Belgium	10	( 1.0)	7	( 0.6)	8	( 0.7)
Other Europe	20	( 2.0)	22	( 2.1)	12	( 1.0)
Others	26	( 2.7)	26	( 2.5)	24	( 2.0)
Not reported	3	( 0.3)	—		2	( 0.2)
Total	980	100.0	1,056	100.0	1,204	100.0

2,500 Ph.D's available, excluding foreign students with a Canadian Ph.D degree and Canadian Ph.D holders with the intention to stay abroad.

There existed a substantial imbalance considering that 125 to 150 Ph.D graduates have actually been able to secure a university position at a Canadian university. The geographic origin of newly appointed university teachers who were previously employed at a university show the following pattern: The majority (54 to 60 per cent, depending on the year) were employed in Canada preceding their appointment, one-third had come from the United States and the balance from other countries. (Table 3) Some of them, of course, are returning Canadians who held a teaching position abroad. However, the majority of the group who came from abroad, were foreign citizens.

Another interesting facet of the new appointment category is the proportion with a doctorate degree. For the three-year period slightly less than 40 per cent were doctoral degree holders and this varied by previous employment status (Table 4). In the case of those who were university teachers before, 53 per cent held a Ph.D degree. In contrast, out of those who were students, only one-third were Ph.D graduates. This trend has not changed markedly over the three-year period under consideration and deserves further analysis. It might very well be that many who have recently been appointed obtained their doctoral degree right after their appointments, others in the professional fields do not require a Ph.D degree, such as the teaching of accounting, journalism, law and some fields of medicine. Another reason might be that the universities could have hired university faculty without a Ph.D at junior ranks, where the Ph.D requirement is less of a necessity. French-speaking universities and universities in the Atlantic Provinces still might experience difficulties in obtaining

Table 4

## Previous Employment of New Appointments by Doctoral Qualifications at Canadian Universities, 1972-73 to 1974-75

Employment Sector	1972-73*			1973-74*			1974-75		
	Doctorate	Other Qualifica- tions	Total	Doctorate	Other Qualifica- tions	Total	Doctorate	Other Qualifica- tions	Total
University or College .....	527 (52.6)	474 (47.4)	1,001	575 (52.7)	516 (47.3)	1,091	675 (53.3)	592 (46.7)	1,267
Other educational insti- tutions .....	32 (26.2)	90 (73.8)	122	30 (25.2)	89 (74.8)	119	46 (24.9)	139 (75.1)	185
Students (including post- doctorals .....	199 (32.0)	423 (68.0)	622	185 (34.6)	350 (65.4)	535	177 (33.9)	345 (66.1)	522
Hospital or Health care .....	28 (26.2)	79 (73.8)	107	27 (17.1)	131 (82.9)	158	19 (15.0)	108 (85.0)	127
Government (including military) .....	38 (39.6)	58 (60.4)	96	34 (30.6)	77 (69.4)	111	49 (33.8)	96 (66.2)	145
Industry and Trade .....	18 (30.5)	41 (69.5)	59	21 (33.3)	42 (66.7)	63	24 (23.3)	79 (76.7)	103
Self-employed .....	8 (16.3)	41 (83.7)	49	4 (8.2)	45 (91.8)	49	4 (6.2)	61 (93.8)	65
Other .....	23 (30.7)	52 (69.3)	75	23 (39.0)	36 (61.0)	59	17 (30.4)	39 (69.6)	56
Sub-total .....	873 (41.0)	1,258 (59.0)	2,131	899 (41.1)	1,286 (58.9)	2,185	1,011 (40.9)	1,459 (59.1)	2,470
Unknown .....	240 (36.6)	416 (63.4)	656	80 (29.1)	195 (70.9)	275	106 (24.9)	319 (75.1)	425
Total .....	1,113 (39.9)	1,674 (60.1)	2,787	979 (39.8)	1,481 (60.2)	2,460	1,117 (38.6)	1,778 (61.4)	2,895

Ph.D graduates with the proper linguistic background or due to labour immobility. This is confirmed somewhat if one examines the relationship between rank and doctoral qualification among the new appointments. As can be expected, at full-professor level close to 70 per cent of new appointments held a doctoral degree (Table 5.) This declined to 60 per cent at the associate professor level and 53 per cent at the assistant professor level. At the level of instructor and lecturer only about 10 per cent possessed a doctoral degree.

In this context, it is of interest to show the percentage distribution of new appointments by rank in comparison to the total rank distribution (Table 6). Only about 5 per cent of these new appointments were at the full-professor rank as compared with 22 per cent of the total, 10 per cent at the associate level (30 per cent), 40 per cent at the assistant professor level (35 per cent) and 29 per cent at the lecturer and instructor level (12 per cent). The "other" category, which includes various types of appointments, such as special lecturers, visiting scholars and demonstrators has increased from 13.7 per cent in 1973-74 to 24.4 per cent in 1974-75, in comparison to 2 per cent of the total. This development requires further attention.

#### Citizenship of University Teachers:

The citizenship distribution of new appointees as it relates to the total number of faculty shows a consistent pattern by teaching field. The proportion of new appointments with Canadian citizenship for all teaching fields has remained consistently below that of the total of university teachers. Whereas in 1972-73, 65.1 per cent of all university teachers were Canadian citizens, the figure for new appointments was 59.7 per cent. (Table 3) For 1973-74 this percentage was 66.3 to 65.0 per cent respect-

Table 5

New Appointments by Rank and Doctoral Qualifications at Canadian Universities,  
1972 - 73 to 1974 - 75

	1972 - 73					
	No. with Doctorate	Percent with Doctorate	No. without Doctorate	Percent without Doctorate	Total Number	Percentage by Rank
Professors .....	104	70.7	43	29.3	147	(5.3)
Associate Professors .....	179	63.7	102	36.3	281	(10.1)
Assistant Professors .....	594	52.5	538	49.5	1,132	(40.6)
Lecturers and Instructors .....	86	10.6	726	89.4	812	(29.1)
Others .....	150	36.1	265	63.9	415	(14.9)
Total .....	1,113	39.9	1,674	60.1	2,787	(100.0)
	1973 - 74					
	No. with Doctorate	Percent with Doctorate	No. without Doctorate	Percent without Doctorate	Total Number	Percentage by Rank
Professors .....	93	71.5	37	28.5	130	(5.3)
Associate Professors .....	151	60.6	98	39.4	249	(10.1)
Assistant Professors .....	543	52.5	492	47.5	1,035	(42.1)
Lecturers and Instructors .....	59	8.3	649	91.7	708	(28.8)
Others .....	133	39.3	205	60.7	338	(13.7)
Total .....	979	39.8	1,481	60.2	2,460	(100.0)
	1974 - 75					
	No. with Doctorate	Percent with Doctorate	No. without Doctorate	Percent without Doctorate	Total Number	Percentage by Rank
Professors .....	91	58.7	64	41.3	155	(5.4)
Associate Professors .....	143	59.8	96	40.2	239	(8.3)
Assistant Professors .....	587	53.4	512	46.6	1,099	(38.0)
Lecturers and Instructors .....	71	10.2	623	89.8	694	(24.0)
Others .....	225	31.8	483	68.8	708	(24.4)
Total .....	1,117	38.6	1,778	61.4	2,895	(100.0)

Table 6

Rank Distribution of University Teachers and  
New Appointments 1972-73 and 1973-74 (in per cent)

	<u>1972 - 73</u>		<u>1973 - 74</u>	
	Total	New Appointments	Total	New Appointments
Professors	21.2	5.3	22.1	5.3
Associate Professors	29.2	10.1	30.9	10.1
Assistant Professors	35.6	40.7	33.6	42.1
Lecturers and Instructors	12.7	29.1	11.3	28.8
Others	1.4	14.9	2.1	13.7
Total	100.0	100.0	100.0	100.0

tively, and for 1974-75 the relation was 67.3 to 62.3 per cent. The non-Canadian citizenship category consists of a sizeable group of landed immigrants with a Canadian Ph.D, recently landed immigrants and finally foreign university teachers with a working permit who had been admitted to Canada on account of their intention to accept a university appointment. It is intriguing that among the teaching fields of mathematics, physical sciences and engineering, the proportion of new appointments with Canadian citizenship was considerably lower than the national average, although there existed a substantial supply of recent Ph.D graduates from Canadian universities in these teaching fields. In fine and applied arts only about every second new position at a Canadian university has been filled by a Canadian citizen although in absolute numbers this group is small.

The professional fields such as education and health have hired a larger percentage of Canadian citizens but in most instances the citizenship of new appointees was still below that of the national average. The information on citizenship has been disaggregated by country of origin. About 15 per cent of the full-time faculty at Canadian universities were U.S. citizens whereas for the newly hired faculty the average percentage was for the four-year period (1971-72 to 1974-75) close to 18 per cent. (Table 8). Citizens of the United Kingdom represented 9 per cent and among the new appointments a similar percentage breakdown existed. This pattern repeats itself for most of the other countries. For example, other Commonwealth countries constitute about 3 per cent of the national total as well as the new appointments and with some variations this percentage distribution of 3 per cent applies to the other geographic areas such as France and Belgium. other European countries and 'other countries', for both the national average

Table 7

Percentage of Total Full-time University Teachers and New Appointments by Canadian Citizenship Status  
and by Teaching Field, 1972-73 to 1974-75

Teaching Field	1972-73		1973-74		1974-75	
	Total	New Appointments	Total	New Appointments	Total	New Appointments
Education .....	74.8	61.3	76.3	85.6	77.4	68.9
Liberal Arts and Applied Arts .....	60.5	44.4	59.6	45.7	59.8	51.1
Humanities .....	60.1	60.5	62.1	68.7	63.5	67.0
Social Sciences .....	60.4	62.4	62.3	65.7	63.5	61.9
Agriculture and Biological Sciences .....	68.0	65.2	69.6	58.0	70.4	64.7
Engineering and Applied Science .....	72.2	55.9	72.3	72.5	72.0	61.5
Health Professions and Occupations .....	74.5	68.3	72.4	64.1	74.7	68.7
Mathematics and Physical Science .....	61.7	56.8	63.2	50.7	64.3	56.9
Other .....	68.0	42.3	67.2	54.4	58.7	48.3
All Fields .....	65.1	59.7	66.3	65.2	67.3	62.3
Number reported .....	14,439	1,353	15,798	1,401	18,546	1,614

Table 8

Citizenship of University Teachers and New Appointments by Geographic Origin, 1971-72 to 1974-75 (in per cent)

	1971-72		1972-73		1973-74		1974-75	
	Total	New Appointments	Total	New Appointments	Total	New Appointments	Total	New Appointments
Canada .....	64.4	57.8	65.1	59.7	66.3	65.0	67.3	62.3
United States .....	14.8	19.4	14.7	18.0	14.6	16.7	14.4	17.9
United Kingdom .....	9.2	9.0	9.0	8.9	8.1	7.1	8.0	8.7
Other Commonwealth .....	3.2	3.6	3.1	3.4	3.0	3.3	2.9	3.0
France and Belgium .....	2.6	3.1	2.5	3.0	2.3	1.8	2.1	2.1
Other Europe .....	3.3	3.8	3.1	3.3	3.2	3.5	3.0	2.7
Other Countries .....	2.5	3.3	2.5	3.7	2.5	2.6	2.3	3.4
Sub-total .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sub-total Number .....	22,419	2,673	24,033	2,263	23,847	2,154	27,549	2,595
Percent Unknown .....	(16.8)	(23.6)	(13.4)	(18.7)	(16.1)	(16.4)	(8.4)	(9.3)
Total Number .....	26,964	3,495	27,738	2,787	28,410	2,577	30,069	2,862

Table 9

Percentage of Canadian Citizenship of Full-time  
University Teachers and New Appointments by Region, 1974-75

	Atlantic Provinces		Quebec		Ontario		Western Provinces	
	Total New Appointments	Total New Appointments	Total New Appointments	Total New Appointments	Total New Appointments	Total New Appointments	Total New Appointments	Total New Appointments
Education .....	73.3	69.2	83.1	76.5	80.4	71.4	71.0	62.1
Liberal Arts and Applied Art .....	56.4	42.9	79.2	50.0	55.3	56.3	52.0	52.9
Humanities .....	63.1	58.8	74.8	60.0	61.5	70.7	58.2	60.9
Social Science .....	60.5	59.4	74.4	69.6	62.3	61.9	54.6	58.8
Natural Science .....	63.2	66.7	76.6	71.4	72.4	63.2	63.8	50.0
Engineering and Applied .....	74.5	100.0	73.5	70.0	71.4	56.3	72.3	62.5
Health Professions .....	66.9	68.4	79.8	71.9	77.3	70.8	66.9	65.6
Mathematics .....	65.2	50.0	69.1	57.1	64.4	65.2	58.7	53.3
Other .....	64.3	33.3	100.0	100.0	61.0	46.7	54.9	48.1
All Fields .....	64.6	61.3	75.8	69.4	66.7	63.3	60.8	56.5
Number .....	2,046	219	4,962	375	7,872	615	3,669	405
Total Reported .....	183	21	39	6	270	60	2,028	180

and new appointments. Therefore, the discrepancy between national average and new appointments are most marked for citizens of the United States. Some of them, of course, have obtained their Ph.D at a Canadian university and are in the process of obtaining their Canadian citizenship after the completion of the five-year residence requirement(4).

The citizenship breakdown by region shows for 1974-75 that Québec has 75.8 per cent of full-time university teachers who are Canadian citizens as compared with 60.8% in the Western Provinces. The new appointments for these two regions show that 69.4% were Canadian citizens in Québec and 56.5% in the Western region. The citizenship distribution by teaching field shows some variations. Particularly the human sciences, which includes fine and applied arts, humanities and social sciences, with few exceptions, have less than 60 per cent Canadian citizens among the new appointments.

#### United States - Canadian Comparisons

Another interesting comparison consists in relating U.S. university teacher characteristics such as doctoral qualifications, age and academic rank to Canadian data. In 1972-73, 49.6 per cent of university teachers in the United States held an earned doctorate degree as compared with 53.7 per cent in Canada that year (Table 10). This comparison shows that as measured by formal educational attainment many Canadian university teachers possess superior credentials, a fact which deserves greater recognition.

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(4) Depending on the year, the citizenship information was not available for a certain percentage of the university teachers. Some universities have not reported this data element in previous years, but for 1974-75 only 8.4 per cent of the total faculty characteristics was unknown and 9.3 per cent for the new appointments. Moreover, a number of universities are updating their file on legal residence status which in most instances means that the national average of Canadian citizens would increase by several percentage points, because many of the university teachers have in the meantime completed the 3-year requirement for citizenship. These observations do not apply to the most recently appointed university faculty.

Table 10

Academic Qualifications of United States University Teachers  
with Canadian Faculty, 1972-73 (in percent)

Highest Degree Held	United States	Canada
Earned Doctorate .....	49.6	53.7
Master's .....	34.2	27.8
Professional Degrees .....	9.4	5.0
Bachelor's .....	5.8	7.6
Other .....	1.0	5.9
Total .....	100.0	100.0

Table 11

Age Distribution of U.S. University Teachers  
with Canadian Faculty, 1972-73

Age	United States	Canada
	%	%
30 or less .....	6.1	13.2
31 - 35 .....	15.5	25.2
36 - 40 .....	15.7	21.0
41 - 45 .....	15.8	15.8
46 - 50 .....	14.5	10.7
51 - 55 .....	13.7	6.8
56 - 60 .....	9.3	4.2
over 60 .....	9.5	3.1

Table 12

Academic Rank Distribution of United States  
University Teachers with Canadian Faculty, 1972-73

	United States	Canada
	%	%
Professor .....	36.2	21.2
Associate Professor .....	25.4	29.2
Assistant Professor .....	24.4	35.6
Instructor and Lecturer .....	11.9	12.7
Other .....	2.2	1.4
Total .....	100.0	100.0

In the United States 6.1 per cent of the university teachers were 30 years old or less as compared to 13.2 per cent in Canada (Table 11). In the older age group, 51 years and older, 32.2 per cent in the United States were in this category as compared to only 14.1 per cent in Canada. This young age distribution of university faculty in Canada has serious implications. At present, the lack of replacement positions creates an immense inflexibility in the labour market for university teachers.

For the year 1972-73 the academic rank distribution of U.S. university teachers compared with their counterpart in Canada reveals a much larger proportion of 36.2 per cent of full-professors in the United States, as compared with 21.2 per cent in Canada. (Table 12) At the assistant professor level, the proportion is 24.4 per cent in the United States in comparison with 35.6 per cent in Canada. This reflects, partly, the much younger age structure of Canadian university teachers.

#### Concluding Observations:

The discussion of the few select socio-economic characteristics regarding newly appointed university teachers, in comparison to the total universe of university teachers, reveals a number of interesting dimensions which are indicative of future trends and it has proven the need for a much more comprehensive analysis of the 26 socio-economic variables that are available on each university teacher.

Appendix A

Data Elements available for  
Each Full time University Teacher  
At Canadian Universities

Element No.

00	Reporting Institution
01	Permanent Identification Number
02	Faculty, College, Institute, School, etc.
03	Department
04	Salary and Leave Status
05	Actual Salary
06	Annual Rate of Salary
07	Year of Termination
08	Sex
09	Year of Birth
10	Year of Appointment to Institution
11	Previous Employment
12	Province or Country of Previous Employment
13	Medical or Dental Appointment Category
14	Year of First Degree
15	Province or Country of First Degree
16	Level of Highest Earned Degree
17	Year of Highest Earned Degree
18	Province or Country of Highest Degree
19	Country of Citizenship
20	Visa Status
21	Rank, Position and Responsibilities
22	Year of Appointment to Present Rank
23	Principal Subject Taught
24	Number of Months Employed During Current Academic Year
25	Statistics Canada code
26	Size of Institution

APPENDIX B:  
Notes on Previous Employment of University Teachers

Recently it has been suggested by the Minister of Universities and Colleges in Ontario, that Ontario universities have continued to hire foreign faculty in spite of the apparent increase in the supply of doctoral graduates from Canadian universities and of Canadians who have studied abroad. The issue has received wide public attention.

As previously indicated the proportion of new appointees with Canadian citizenship was in the neighbourhood of 63 per cent for the three-year period between 1972-73 and 1974-75. This means that more than one-third of newly hired university teachers were non-Canadians, but this category includes all landed immigrants, visiting scholars with a work permit and those few faculty members who have been admitted to Canada with a ministerial permit. The difficulty with this definition has been that the category of "landed immigrants" actually encompasses two distinct groups: One group consists of those landed immigrants who had been admitted to Canada a number of years ago and in many instances completed graduate training in Canada. This group should be considered as part of the Canadian citizenship category. In contrast, the second immigrant group is made up of persons who have obtained their immigration status on account of an employment offer from a Canadian university. These appointees should be considered the only debatable sub-group, although as landed immigrants they have achieved almost identical rights of Canadian citizens. The non-immigrant foreign university teachers at Canadian universities include many who have accepted a specific position for a limited time period and most of them probably will return to their country of origin. Consequently, this category should not be considered as part of the foreign university professors.

These observations are a necessary pre-condition for an understanding of the appendix tables which have been prepared to identify the residence status (Canadian citizen, landed immigrant, foreign faculty with work or ministerial permit) by country of employment preceding the appointment in Canada.

This analysis will deal first with the total number of new appointments by geographic origin and residence status and secondly, the same analysis will concentrate on only those new appointees who were either university teachers preceding their appointment in Canada or else were graduate students. Those two groups constitute close to three-quarter of all new appointments at Canadian universities during the three-year period. The balance was previously employed in government, industry and other employment sectors.(5)

Table B-1 shows that close to two-thirds of the newly appointed university teachers were residents of Canada preceding their appointment. About 22 per cent were residing in the United States, less than 5 per cent in the United Kingdom and about 6 per cent in other countries. For the three-year period (1972-73 to 1974-75) there were only slight variations annually among these percentage figures, confirming the existence of a certain pattern.

These figures indicate that one-third of the newly appointed faculty were outside the country shortly before accepting an appointment to a Canadian university, but it does not show if those who were residents of Canada in a particular year were either Canadian citizens or landed immigrants or non-immigrant foreign university

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(5) Unfortunately, for over one-third of the new appointees neither the legal residence nor the country of previous employment was known, since a few large universities did not record this information. As a working hypothesis, it has been assumed that the unknown group corresponds to the existing distribution of those university teachers on which all the information was available.

teachers. The same applies to those who came from the United States which includes returning Canadian citizens, landed immigrants who had obtained their immigration status in conjunction with an appointment to a Canadian university and non-immigrant foreign university teachers who had accepted an appointment in Canada. Consequently, this table shows only the proportion of newly appointed university teachers who were trained abroad, which is one-third. This confirms that Canada is still relying substantially on foreign graduate education.

From a legal point of view it is of greater interest to differentiate those landed immigrants who had obtained their immigrant status preceding their appointment and the other group of landed immigrants who acquired their immigration status on account of an appointment to a Canadian university. Table B-2 shows that annually less than 15 per cent of new appointments were in the category of landed immigrants who obtained that status in conjunction with their university appointment. Expressed in absolute numbers, between two - to three hundred university teachers acquired landed immigrant status on the basis of their appointment. To these numbers one needs to add another 100 appointments each year where the information was missing. The important consideration in this respect is whether qualified Canadians were available to substitute for these appointees. This question is difficult to answer. One has to know to what discipline these appointments were made and relate this knowledge to some of the regional considerations. Speculatively, one might consider that at least 50 per cent of these appointments were necessary on account of the non-unavailability of Canadian scholars with particular qualifications, and in the case of French-speaking universities, linguistic and other culture factors. If one accepts this rationale - and further refinements in the data utilization might support this argument, at least for the three-year period under consideration, the number of truly foreign university teachers is not as high as has been suggested.

Moreover, the data cover a period where the awareness and guidelines of hiring foreign university teachers were not yet fully developed or accepted. The recent emphasis placed on searching for Canadians will increasingly be reflected in a larger number of Canadians and those landed immigrants who have been in Canada for a number of years. To reconfirm this argument, Canada had probably hired less than 100 new "foreign" university teachers each year from a wide variety of countries including the United Kingdom, France and Belgium. Only from the United States did between 200 and 300 university teachers arrive each year, who were not Canadian citizens or landed immigrants for a number of years. But one should remember that during this period close to 3,000 university appointments were made each year which means that considerably less than 10 per cent were in a category which might be considered debatable. Excluded from these considerations are those non-immigrant university teachers who came to Canada with a work or ministerial permit. The number involved in this category was less than 150 each year and most of them will leave after their assignments have been completed. From an intellectual point of view this group is an important addition to Canada's academic growth and this group constitutes less than half a percentage point of the total number of university teachers. It should be remembered that many Canadian university professors go abroad each year, on sabbatical leave and such an exchange is part of a normal pattern of the international academic community.

For those new appointments who were already university teachers or graduate students prior to assuming their position at a Canadian university special tables have been prepared. It should be remembered that these two groups constitute almost 75 per cent of all new appointments. Therefore it is of interest to trace the country of origin in conjunction with their residence status for the three-year period. For those faculty members who were Canadian citizens close to 75 per cent

were residents of Canada and about 20 per cent were living in the United States and the balance in other countries. (Table B-3) This information indicates that a sizeable number of Canadians have stayed primarily in the United States in a teaching capacity before returning to Canada. In the case of the landed immigrant category more than one-third of the landed immigrants already resided in Canada preceding their appointment to a Canadian university. This figure indicates that a sizeable number of university appointments were made to landed immigrants who had been in Canada before assuming their new teaching position. Another interesting aspect of this information is that about 45 per cent of those who were landed immigrants had lived in the United States immediately prior their appointment. This seems to reveal that Canadian universities have relied to some extent on U.S. citizens for new appointments although the numbers involved in relation to the total of new appointments is less than 10 per cent. A similar pattern exists for those university teachers who came to Canada with a work permit where about 50 per cent came from the United States, but some of them were not U.S. citizens. Overall, between 54 and 60 per cent, depending on the year, were residents of Canada at the time of their appointment and less than one-third were residents of the United States. The same information is provided for the three-year period.(6) According to table B-4 62.8 per cent were Canadian citizens, 29.8 per cent were landed immigrants and 7.4 per cent were in the other category, e.g. work permits. Based on the country of residence 63.3 per cent were residents of Canada and 25.7 per cent were living in the United States prior to their appointment.

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(6) Table B-3 and B-4 are not comparable because B-3 includes those university teachers whose residence status were not known and distributed according to a formula whereas B-4 excludes the unknown group.

An attempt has been made to compare for each year the geographic origin and legal residence status in absolute numbers to determine if a pattern exists. It should be remembered that for about one-third of those who were university teachers prior to their appointment this information has been lacking. Consequently, as a crude approximation one-third should be added to each figure. Although the three years do not provide a clear trend the variation from one year to the next are from a policy point of view not significant. For example 61.7 per cent were Canadian citizens in 1972-73 66.0 per cent in 1973-74 and 60.8 per cent in 1974-75. The comparable figures for landed immigrants were 30.6, 27.1 and 31.7 per cent. It will be intriguing to know what has happened to these percentage figures for the following years. As a working hypothesis it can be assumed that this relationship will not have changed markedly. Another cautionary observation is that this is the first time that these data elements have been investigated and any interpretation has to be done carefully, particularly if absolute numbers are used. The same comments apply to the discussion of country of previous graduate studies of newly appointed university teachers by legal residence status. For the three-year period, 72.4 per cent of this group were Canadian citizens, 21.4 per cent were landed immigrants and 6.2 per cent were in the other category. For those who were residents of Canada 80 per cent were Canadian citizens as compared with 51.9 per cent who were residents of the United States. In absolute numbers, for these three years 198 were Canadian citizens who returned from the United States as compared with 121 who were landed immigrants with U.S. citizenship. For these three years, on the average, only about 50 appointees each year fell into the category of graduate students prior to appointment who had become landed immigrants in conjunction with their appointment. It is likely although difficult to prove conclusively, that many of these 50 appointments were necessary on account of the unavailability of qualified Canadians in certain disciplines.

Table B provides the same information in absolute numbers and percentage breakdown for each year. The interesting fact is that over 80 per cent of those new appointments who were residents of other countries abroad including the United Kingdom were Canadian citizens although the absolute numbers involved are small (less than 50, on the average, for the three years). In this context it is worthwhile to explore only for those new appointments who held a Ph.D. degree and were graduate students prior their appointment. Table B-8 shows that from about 150 new appointments each year with a Ph.D., 78 per cent were Canadian citizens or landed immigrants of long standing. Out of these a relatively large number have still obtained their Ph.D. abroad. Less than 50% of the newly appointed university teachers with a Ph.D. degree have come from Canadian universities (Table B-9). More than one third of these appointees have received their graduate training in the United States.

As discussed in the main text of the paper the supply-demand imbalance is disquieting if one remembers that between 2,000 and 2,500 Ph.D.s are awarded annually from Canadian universities and Canadians returning from abroad. This imbalance requires further study. It is unlikely that there is a possibility for a substantial shift in policy with regard to hiring new university teachers i.e. that preference might be given to those who have recently graduated. It is more likely that the Canadian universities will rely to a large extent on university teachers who had prior experience either in the university or other employment sectors.

In summary, it appears that the question of the origin of newly appointed university teachers by legal residence status has not been placed in the proper perspective. Less than 15 per cent of new appointments could be regarded as debatable assuming that qualified Canadians have been available in all 50 to 100 possible disciplines or sub-disciplines. If one relates the three to four

hundred appointments which are debatable to the 30,000 university teachers and the over 50 universities involved with their thousands of different departments each with their own characteristics, the issue of "foreignization" of Canadian universities appears to be less acute. This does not negate the argument that during the sixties and early seventies a large number of foreign students had been admitted to Canada as landed immigrants with equal rights as Canadian citizens. They should not be discriminated against now.

The important consideration in this discussion was to draw attention to the magnitudes involved. In specific cases there might have been used, on a departmental basis, unusual criteria in the selection of new faculty and there are likely considerable regional, provincial and institutional variations in the number of foreign faculty hired but these aspects need to be explored further before more definite conclusions can be drawn and policy options be considered.

Table B - 1  
Country of Previous Employment of Newly Appointed  
University Teachers, 1972-73 to 1974-75

	1972-73		1973-74		1974-75	
	No.	%	No.	%	No.	%
Canada .....	1,071	64.5	1,183	69.7	1,362	67.4
United States .....	374	22.5	353	20.8	454	22.5
United Kingdom .....	82	4.9	76	4.5	97	4.8
Other countries .....	133	8.0	85	5.0	108	5.3
Total .....	1,660	100.0	1,697	100.0	2,021	100.0

Table B - 2  
Country of Previous Employment of Newly Appointed  
University Teachers by Legal Residence Status, 1972-73 to 1974-75

		Canadian Citizens	Landed immigrants	Total	Others*
Canada .....	1972-73	1,058**	(183)	1,058	13
	1973-74	1,166**	(197)	1,166	17
	1974-75	1,348**	(233)	1,348	14
United States .....	1972-73	173	150	323	51
	1973-74	172	132	323	49
	1974-75	183	199	382	72
United Kingdom .....	1972-73	42	25	67	15
	1973-74	37	29	66	10
	1974-75	42	39	81	16
Other countries .....	1972-73	62	50	112	21
	1973-74	39	25	64	21
	1974-75	48	46	94	14
Total*** .....	1972-73	1,335(85.6)	225(14.4)	1,560	100
	1973-74	1,414(88.4)	186(11.6)	1,600	97
	1974-75	1,621(85.1)	284(14.9)	1,905	116

\* This category includes mostly foreign university teachers with a one year work period.

\*\* The Canadian Citizenship category includes for 1972-73 183 university teachers who were landed immigrants, but had lived in Canada for a number of years. The figure for 1973-74 and 1974-75 were 197 and 233 respectively.

\*\*\* The percentage breakdown between Canadian Citizenship and landed immigrant status in brackets.

A Note of Caution: A sizeable number (about 1/3 of the universe) of newly appointed university teachers neither their country of previous employment nor their legal residence status are known. But there are indications that the non-reported category follows a similar distribution as those two-thirds of university teachers who had reported those two data elements.

Table B-3

Percentage Distribution by Country of Previous University Employment by Residence Status,  
1972-73 to 1974-75

	Canadian Citizens	Landed Immigrants	Others	Total
<u>1972-73</u>				
Canada .....	72.0	34.9	10.1	54.0
United States .....	21.3	46.8	53.6	33.0
United Kingdom .....	2.2	5.8	18.8	4.7
Other Countries .....	4.5	12.5	17.4	8.3
Total Number .....	550	361	12	980
<u>1973-74</u>				
Canada .....	76.4	39.8	17.1	60.3
United States .....	18.1	44.2	40.8	28.2
United Kingdom .....	2.2	6.7	9.2	4.1
Other Countries .....	3.3	9.3	32.9	7.4
Total Number .....	640	342	76	1,058
<u>1974-75</u>				
Canada .....	74.6	35.1	15.2	57.5
United States .....	19.2	46.5	54.3	30.6
United Kingdom .....	3.3	9.4	17.4	6.3
Other Countries .....	2.9	9.1	13.0	5.6
Total Number	730	385	92	1,207

Note: Includes those university teachers who did not specify their residence status,  
but were distributed according to their country of previous university employment.

Table B - 4  
Country of Previous University Employment  
of Newly Appointed University Teachers by  
Legal Residence Status for a three year period  
(1972-73 to 1974-75)

	Canadian Citizens	Landed immigrants	Other, e.g. work permit	Total Number	Percentage break- down
Canada .....	1,232 (77.8)	326 (20.6)	26 (1.6)	1,584	63.3
United States .....	258 (40.1)	294 (45.7)	91 (14.2)	643	25.7
United Kingdom .....	35 (29.4)	54 (45.4)	30 (25.2)	119	4.8
Other countries .....	46 (29.3)	74 (47.1)	37 (23.6)	157	6.3
Total .....	1,571 (62.8)	748 (29.8)	184 (7.4)	2,503	100.0

Note: Percentage Distribution by legal residence status in brackets.

TABLE B-5  
Residence Status and Country of Previous University  
Employment for New Appointments, 1972-73 to 1974-75

	Canadian Citizens*		Landed Immigrants*		Work Permits and Others*	
	1972-73	1973-74	1974-75	1972-73	1973-74	1974-75
Canada .....	346	429	457	90	106	130
	(78.3)	(78.6)	(76.7)	(20.4)	(19.4)	(21.8)
United States ....	77	86	95	89	81	124
	(39.9)	(45.5)	(36.5)	(46.1)	(42.6)	(47.7)
United Kingdom ...	7	11	17	11	18	25
	(23.3)	(32.4)	(30.9)	(36.7)	(52.9)	(45.5)
Other Countries ..	18	13	15	32	16	26
	(29.5)	(28.3)	(30.0)	(52.5)	(34.8)	(52.0)
Total .....	448	539	584	222	221	305
	(61.7)	(66.0)	(60.8)	(30.6)	(27.1)	(31.7)

\*Percentage of legal residence status in brackets

Note: In 1972-73, 254 out of 980 did not indicate their legal residence status, and this figure declined to 242 out of 1,058 in 1973-74 and to 246 out of 1,207 in 1974-75

Table B - 6  
Country of Previous Graduate Study  
of Newly Appointed University Teachers  
by Legal Residence Status for a three  
year period. (1972-73 to 1974-75)

	Canadian Citizens	Landed immigrants	Others e.g. work permit	Total Number	Percentage break- down
Canada .....	645 (79.9)	149 (18.5)	13 (1.6)	807	58.9
United States .....	198 (51.9)	121 (31.8)	62 (16.3)	381	27.8
United Kingdom .....	70 (82.4)	12 (14.1)	3 (3.5)	85	6.2
Other countries .....	80 81.6	11 (11.2)	7 (7.1)	98	7.1
Total .....	993 (72.4)	293 (21.4)	85 (6.2)	1,371	100.0

Note: Percentage Distribution by legal residence status in brackets.

Table B-7

Residence Status and Country of Previous Graduate Study for New Appointments,  
1972-73 to 1974-75

	Canadian Citizen**			Landed Immigrants**			Work Permits and Others**		
	1972-73	1973-74	1974-75	1972-73	1973-74	1974-75	1972-73	1973-74	1974-75
Canada .....	227	205	213	49	48	52	3	5	5
	(81.4)	(79.5)	(78.9)	(17.6)	(18.6)	(19.3)	(1.1)	(1.9)	(1.8)
United States .....	69	64	65	43	36	42	17	20	25
	(53.5)	(53.3)	(49.2)	(33.3)	(30.0)	(31.8)	(13.1)	(16.7)	(18.9)
United Kingdom .....	30	18	22	8	*	*	*	*	*
	(76.9)	(90.0)	(84.6)	(20.5)	(5.0)	(11.5)	(2.6)	(5.0)	(3.8)
Other Countries .....	39	24	17	*	*	*	*	*	*
	(86.6)	(85.7)	(68.0)	(6.7)	(7.1)	(24.0)	(6.7)	(7.1)	(6.0)
Total .....	365	311	317	103	87	103	24	28	33
	(74.2)	(73.0)	(70.0)	(20.9)	(20.4)	(22.7)	(4.9)	(6.6)	(7.3)

\* The numbers are less than three.

\*\* Percentage of legal residence status in brackets.

Note: In 1972-73, 130 out of 622 did not indicate their legal residence status and this figure declined to 110 out of 536 in 1973-74 and to 71 out of 524 in 1974-75.

Table B-8

Country of Graduate Study of Newly Appointed University Teachers with a Ph.D. Degree by Residence Status for a three year period (1972-73 to 1974-75)

	Canadian Citizens	Landed Immigrants	Others e.g., Work Permits	Total	Percentage Distribution
Canada	204* (98.6)	(55) --	3 (1.4)	207	46.6
United States	77 (48.4)	54 (34.6)	25 (16.0)	156	35.1
United Kingdom	24 (70.6)	9 (26.5)	1 (2.9)	34	7.7
Other countries	39 (83.0)	5 (10.6)	4 (6.4)	47	10.6
Total	344 (77.5)	68 (15.3)	32 (7.2)	444	100.0

\* Includes those Landed Immigrants who had been in Canada for a number of years.

Note: Excludes those who did not report either legal residence status or country of study (approximately one third were in this category).

Table B-9

Country of Graduate Study of Newly Appointed  
University Teachers with a Ph.D. Degree,  
1972-73 to 1974-75

	1972-73		1973-74		1974-75	
	Number	%	Number	%	Number	%
Canada .....	61	40.4	76	53.5	70	46.4
United States .....	50	33.1	50	35.2	56	37.1
United Kingdom .....	13	8.6	8	5.6	13	8.6
Other Countries ...	27	17.9	8	5.6	12	7.9
Total .....	151	100.0	142	100.0	151	100.0











